Mandarin conditionals: the external syntax, order preservation and cyclic linearization
Zhuo Chen, UCLA

1 Introduction Based on Haegeman's (2003) and Endo & Haegeman's (2019) work on adverbial clauses, using novel data, I argue that in Mandarin conditionals, sentence-initial *ruguo*-clauses involve successive cyclic movement from a VP internal position through two intermediate positions, the edge of VP phase and Spec *jiu*P within the consequent clause (1). Moreover, I propose that an order preservation effect, in which a *ruguo*-clause must always precede an *even*-focused object, is the result of a representational constraint on the functional hierarchy conspiring with a derivational constraint, i.e. Cyclic Linearization (CL, Fox & Pesetsky 2005).

(1) [CP [*ruguo*…] [consequent DPsub…____ *jiu*… [VP ____ … DPobj ____]]]

2 Origin of initial *ruguo*-clauses Like English *if*-conditionals (Haegeman 2003), at least some initial *ruguo*-clauses are derived from a lower position within the consequent clause. One direct argument comes from word order variations: despite being canonically sentence-initial (2a)[1], a *ruguo*-clause alternatively occurs within the consequent (2b).

(2) a. ruguo   bu   xiayu, Zhangsan   **jiu**   hui   lai.
        if   NEG   rain   Z.   then   will   come
        'If it doesn't rain, Zhangsan then will come.'
    b. Zhangsan   ruguo bu   xiayu **jiu**   hui   lai.

A derivational relation between initial *ruguo*-clauses (2a) and internal *ruguo*-clauses (2b) is evident in the fact that an initial *ruguo*-clause containing an anaphor undergoes obligatory reconstruction to a position lower than the subject and/or the object of the consequent (3-4).

(3) a. ruguo   **taziji₁**   de   jiaren zhichi, **Zhangsan₁**   jiu   hui   bangzhu   dajia.
        if   3SG.SELF DE   family support Z.   then   will   help   people
        'If the family of himself₁ is supportive, Zhangsan₁ will then help people.'
    b. [*ruguo* **taziji₁**…][consequent **Zhangsan₁** … √ …]
(4) a. ruguo   **taziji₁**   de   jiaren zhichi, dajia jiu   hui   bangzhu   **Zhangsan₁**.
    b. [*ruguo* **taziji₁**…][consequent dajia … **Zhangsan₁** √]

Furthermore, the existence of a *second* reconstruction site receives support from the absence/presence of Condition C connectivity when anaphoric binding forces reconstruction of an initial *ruguo*-clause. (5) is correctly ruled in since an intermediate reconstruction site can satisfy anaphoric binding while circumvent Condition C violation. Conversely, (6) is ruled out as no such reconstruction site is available and Condition C connectivity shows up, contra Pan & Paul (2018). Thus, I argue that the derivation of initial *ruguo*-clauses minimally involves movement from a position lower than the object of the consequent, and through some intermediate position between the subject and the object within the consequent.

(5) a. ruguo   **bici₁**   de   zhugong   bei   **jiaolian₂**   kanzhong,
        if   each other   DE   assist   PASS   coach   value
        qiuyuan-men₁ jiu   hui   zhichi   **ta₂**.
        player-PL   then   will   support   3SG
        'If **each other₁**'s assists are valued by **the coach₂**, **the players₁** will then support **him₂**.'
    b. [*ruguo* **e.o.₁**… **the coach₂**…][consequent **players₁** … √ … **him₂**]   √Condition A √Condition C
    c. [*ruguo* **e.o.₁**… **the coach₂**…][consequent **players₁** … **him₂** *]   √Condition A *Condition C
(6) a. *ruguo   **bici₁**   de   zhugong   bei   **jiaolian₂**   kanzhong,
        ta₂ jiu   hui   guli   **qiuyuan-men₁**.
    b. [*ruguo* **e.o.₁**… **the coach₂**…][consequent **he₂** … * …**players₁**]   *Condition A *Condition C
    c. [*ruguo* **e.o.₁**… **the coach₂**…][consequent **he₂** …**players₁** *]   √Condition A *Condition C

3 *ruguo*-clauses and *jiu* Endo & Haegeman (2019) propose that an adverbial clause is merged as a specifier of a functional head Mod within the main clause. Extending their analysis to Mandarin conditionals by assuming a Spec-Head relation between an internal *ruguo*-clause and *jiu*, the "conditional marker" within the consequent (Liu 2017), we can account for the following facts: (i) an internal *ruguo*-clause and *jiu* must be adjacent to each other and cannot be separated by another head, e.g. a modal (2b, 7); and (ii) an internal *ruguo*-clause must precede but not follow *jiu* (2b, 8). Hence, I argue that the derivation of initial *ruguo*-clauses involves moving through Spec *jiu*P.

(7) a. *Zhangsan   ruguo bu   xiayu hui   **jiu**   lai.
    b. Zhangsan   hui   ruguo bu   xiayu **jiu**   lai.
(8) a. *Zhangsan   **jiu**   ruguo bu   xiayu hui   lai.
    b. *Zhangsan   hui   **jiu**   ruguo bu   xiayu lai.

---

[1] The reported judgments have been confirmed by five Mandarin native speakers and three English native speakers.

4 *ruguo*-clauses and *even*-focused objects: order preservation and CL Following Lin (1996) and Constant & Gu (2010), I assume a working hypothesis that a sentence-internal *even*-focused object involves movement of the object from a VP internal position to the specifier position of a functional projection headed by *dou* (9a), and a sentence-initial *even*-focused object involves cyclic movement from its base position through Spec *dou*P (9b).

(9) a. [$_{CP}$ Zhangsan lian chenshan **dou** bu [$_{VP}$ chuan ____]].
     Z.   even shirt   **ALL** NEG   wear
     'Zhangsan doesn't wear even shirts.'

  b. [$_{CP}$ lian chenshan Zhangsan ____ **dou** bu [$_{VP}$ chuan ____]].

When an *even*-focused object occurs within a conditional, some order restrictions are found: (i) an internal *ruguo*-clause must precede but not follow an internal *even*-focused object (10), and (ii) *jiu* must precede but not follow *dou* (10, 11a-b). Assuming a representational constraint on the functional hierarchy: *jiu*P > *dou*P ("XP>YP" = "XP is higher than YP"), we can make sense of these restrictions: *jiu*P > *dou*P entails Spec *jiu*P > Spec *dou*P.

(10) a. Zhangsan ruguo tianqi re **jiu** lian chenshan **dou** bu chuan.
        Z.   if   weather hot then even shirt   **ALL** NEG wear
        'Zhangsan doesn't wear even shirts if it is hot.'
    b. *Zhangsan lian chenshan **dou** ruguo tianqi re **jiu** bu chuan.

(11) a. ruguo tianqi re lian chenshan Zhangsan **jiu** **dou** bu chuan.
    b.*ruguo tianqi re lian chenshan Zhangsan **dou** **jiu** bu chuan.
    c.*lian chenshan ruguo tianqi re Zhangsan **jiu** **dou** bu chuan.

Interestingly, an order preservation effect is also found: *ruguo*-clause < *even*-focused object ("X<Y" = "X precedes Y") both sentence-internally (10) and sentence-initially (11). I argue that this is the result of the representational constraint (*jiu*P > *dou*P) conspiring with a derivational constraint (CL). On the one hand, since *jiu*P > *dou*P entails Spec *jiu*P > Spec *dou*P, i.e. internal *ruguo*-clause < internal *even*-focused object, under CL, movement through the VP phase edge (Fox & Pesetsky 2005, Ko 2005) would avoid an order contradiction (12a) that would otherwise be generated by non-edge movement (12b):

(12) a. [$_{CP}$ DP$_{sub}$ CP$_{if}$ *jiu* DP$_{obj}$ *dou* [$_{VP}$ **t**$_{CP}$ **t**$_{DP}$ V **t**$_{DP}$ **t**$_{CP}$]]   CP$_{if}$ < DP$_{obj}$ < V < CP$_{if}$ < DP$_{obj}$
    b. *[$_{CP}$ DP$_{sub}$ CP$_{if}$ *jiu* DP$_{obj}$ *dou* [$_{VP}$ V **t**$_{DP}$ **t**$_{CP}$]]   *CP$_{if}$ < DP$_{obj}$ < V < DP$_{obj}$< CP$_{if}$

On the other hand, if sentence-initial *ruguo*-clauses and *even*-focused objects involve moving through Spec *jiu*P and Spec *dou*P respectively, the order preservation effect (*ruguo*-clause < *even*-focused object) is understandable: reversing their order would result in a contradiction (13).

(13) a. [$_{CP}$ CP$_{if}$ DP$_{obj}$ DP$_{sub}$ **t**$_{CP}$ *jiu* **t**$_{DP}$ *dou* [$_{VP}$ **t**$_{CP}$ **t**$_{DP}$ V **t**$_{DP}$ **t**$_{CP}$]]
                                            CP$_{if}$ < DP$_{obj}$ < V < CP$_{if}$ < DP$_{obj}$

    b. *[$_{CP}$ DP$_{obj}$ CP$_{if}$ DP$_{sub}$ **t**$_{CP}$ *jiu* **t**$_{DP}$ *dou* [$_{VP}$ **t**$_{CP}$ **t**$_{DP}$ V **t**$_{DP}$ **t**$_{CP}$]]
                                            *DP$_{obj}$< CP$_{if}$ < V < CP$_{if}$ < DP$_{obj}$

Moreover, one prediction made by this analysis is that such order preservation effect still holds when only one of them is sentence-initial and the other is sentence-internal. This is borne out:

(14) a. ruguo tianqi re Zhangsan **jiu** lian chenshan **dou** bu chuan.
    b. *lian chenshan Zhangsan ruguo tianqi re **jiu** **dou** bu chuan.

5 Extension Inspired by the parallel between English conditionals and unconditionals (Rawlins 2008), I suggest that the above derivation may also apply to Mandarin unconditionals, e.g. more than one reconstruction site seems to be available for sentence-initial *buguan*-clauses:

(15) buguan   **taziji$_{1/2}$** de   jiaren   zhichi-bu-zhichi,
    no matter 3SG.SELF   DE   family   support-NEG-support
    Zhangsan$_1$ dou hui bangzhu   **Lisi$_2$**.
    Z.   ALL will help   L.
    'No matter whether the family of himself$_{1/2}$ is supportive or not, Zhangsan$_1$ will help Lisi$_2$.'

(16) a. buguan   **bici$_1$** de   zhugong   hui-bu-hui   bei **jiaolian$_2$** kanzhong,
        no matter e.o.   DE   assist   will-NEG-will PASS coach   value
        qiuyuan-men$_1$ dou hui zhichi   **ta$_2$**.
        player-PL   ALL will support   3SG
        'No matter whether **each other$_1$**'s assists are valued by **the coach$_2$**, **the players$_1$** will support **him$_2$**.'
    b. [$_{buguan}$ **e.o.$_1$**…**the coach$_2$**…][$_{consequent}$ **players$_1$**…√…**him$_2$** *]

Meanwhile, a quick look at English suggests that this pattern might be cross-linguistically attested:

(17) a. %If books about **himself$_{1/2}$** sell well, **John$_1$** will pay **Bill$_2$**.
    b. If **her$_1$** child is ignored by **John$_2$**, **every mother$_1$** will call **him$_2$**.
    c. *If **John$_2$** sees **her$_1$** child, **he$_2$** will call **every mother$_1$**.